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cons.aa	G G G V	A K	E
htGFBR-II	LDTLVGKGRFAEVYKAKLKQNTSEQFETVAVKIFPYDHYASWKDRKDI	FSDINLKHENILQF	
mActR-IIB	LLEIKARGRFPCVWKAQLMN-----	DFVAVKIKPLQDKQSWQSEREIFSTPGM	KHENLLQF
mActR-II	LLEVKARGRFPCVWKAQLLN-----	EYVAVKIFPIQDKQSWQNEYEVYSIPGM	KHENILQF
daf-1	LTVRVGSGRFGNVSRGDYRG-----	EAVAVKVFNAIDEPAFHKEIEIFETRMLRHPNVLR	
subdomains	I	II	III IV

htGFBR-II	LTAEERKTELCKQYWLITAFHAKGNLQEYLTRHVISWEDLRNVGSSLARGLSHLSDHTP-C
mActR-IIB	IAAEKRGSNLEVELWLITAFHDKGSLIDYLGNIITWNELCVHAETMSRGISYLVHEDVPWCR
mActR-II	IGAETRGTSVDVDLWLITAFHEKGSLSDFLKANVSVWNELCVHAETMARGLAYLHEDIPLGK
daf-1	IGSDRVDTGFTVTELWLVIETHPSGSLHDFLENTVNIETYYNLMRSTASGLAFLHNQIGGSK
subdomains	V VI-A

cons.aa	DLK N	DFG
htGFBR-II	GRPKPIVHRDLKSSNIVKNDLTCCLCDFGLSLRL---	GPYSSVDDLANSQVGTARYMAP
mActR-IIB	GECHKPSIAHRDFKSKNVLLKSDLTAVLADFGLAVRF---	EPGKPPGD-THGQVGTTRYMAP
mActR-II	DGHKPAISHRDIKSKNVLLKQNLTAACIADFGLALKF---	EAGKSAGD-THGQVGTTRYMAP
daf-1	ESNKPAMAHRDIKSKNTMYTNDLTCAIGDLGLSLSKPEDAASDIAN-	ENYKCGTVRYLAP
subdomains	VI-B	VII VIII

Fig. 1

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a.a            C C E G N M C  
5' GCGGATCCTGTTGTGAAGGNAATATGTG 3' Fig. 2A  
BAMHI C C G C

a.a            V A V K I F  
5' GCGGATCCGTCGCAGTCAAAATTTT 3' Fig. 2B  
BamHI G C G G C  
T T T A

a.a            R D I K S K N  
5' GCGGATCCGCGATATTAAAAGCAA 3' Fig. 2C  
BAMHI A C C GTCT  
G A

a.a            E P A M Y  
5' CGGAATTCTGGTGCCATATA Fig. 2D  
EcoRI G G G  
A A

[illegible]

**Fig. 3**

**Fig. 3 contd.**

**Fig. 3 contd.**

K	M	N	L	T	A	C	I	A	D	F	G	L	A	L	K	F	E	A	G	K	S	A	G	D	-	-	-	T	H	G	Q	V	G	T	R	R	Y	M	A	P	E	V	L	E	G	ACTR-II				
K	S	O	L	T	A	V	L	A	D	F	G	L	A	V	R	L	F	E	P	E	P	T	L	S	V	D	D	-	-	-	T	H	G	Q	V	G	T	R	R	Y	M	A	P	E	V	L	E	G	ACTR-II	
K	M	D	L	T	C	C	L	C	D	F	G	L	S	L	R	L	D	S	A	G	T	O	T	I	D	I	A	P	S	H	M	P	P	R	V	G	T	K	R	Y	M	A	P	E	V	L	D	D	TBR-I/ALK-5	
K	K	N	G	T	C	C	I	A	D	L	G	L	A	V	R	H	M	H	S	Q	S	T	N	Q	L	D	D	I	A	P	S	H	M	P	P	R	V	G	T	K	R	Y	M	A	P	E	V	L	D	ALK-1
K	S	N	G	Q	C	C	I	A	D	L	G	L	A	V	M	H	S	Q	S	T	N	Q	L	D	D	V	D	I	A	P	S	H	M	P	P	R	V	G	T	K	R	Y	M	A	P	E	V	L	D	ALK-2
K	K	N	G	S	C	C	I	A	D	L	G	L	A	V	K	F	N	S	S	D	T	N	E	V	D	I	A	P	S	H	M	P	P	R	V	G	T	K	R	Y	M	A	P	E	V	L	D	ALK-3		
K	K	N	G	M	C	A	I	A	D	L	G	L	A	V	R	H	D	A	V	I	D	I	T	I	D	I	A	P	S	H	M	P	P	R	V	G	T	K	R	Y	M	A	P	E	V	L	D	ALK-4		
K	K	N	G	T	C	C	I	A	D	L	G	L	A	V	K	F	I	S	D	I	N	E	V	D	I	A	P	S	H	M	P	P	R	V	G	T	K	R	Y	M	A	P	E	V	L	D	ALK-6			

VIII

VII

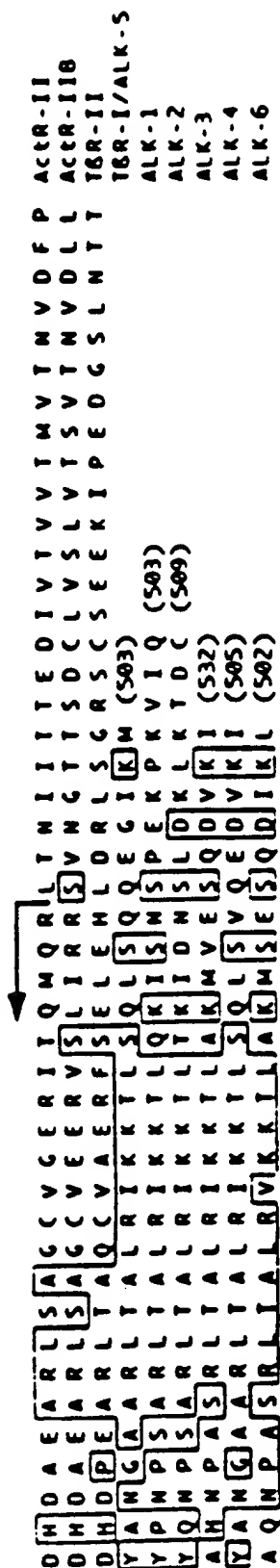
A	I	N	F	Q	R	-	D	A	F	L	R	I	D	M	Y	A	M	G	L	V	L	M	E	L	A	S	R	C	T	A	A	D	G	P	P	V	D	E	Y	M	L	P	F	E	E	ACTR-II
A	I	N	F	Q	R	-	D	A	F	L	R	I	D	M	Y	A	M	G	L	V	L	M	E	L	A	S	R	C	T	A	A	D	G	P	P	V	D	E	Y	M	L	P	F	E	E	ACTR-II
R	M	N	L	E	N	A	E	S	F	K	Q	I	D	Y	Y	S	M	A	L	V	L	M	E	I	S	R	C	T	A	A	D	G	P	P	V	D	E	Y	M	L	P	F	E	E	TBR-II	
S	I	N	M	K	H	F	E	S	F	K	R	A	D	I	Y	A	M	G	L	V	L	M	E	I	A	R	R	C	S	I	-	G	G	I	H	E	D	Y	Q	L	P	Y	D	TBR-I/ALK-5		
Q	I	R	T	D	C	F	E	S	Y	K	W	T	D	I	W	A	F	G	L	V	L	M	E	I	A	R	R	C	T	I	V	-	N	G	I	V	E	D	Y	R	P	P	F	Y	D	ALK-1
T	I	Q	V	D	C	F	D	S	Y	K	R	V	D	I	W	A	F	G	L	V	L	M	E	I	A	R	R	C	T	I	V	-	N	G	I	V	E	D	Y	R	P	P	F	Y	D	ALK-2
S	L	N	K	N	H	F	Q	P	Y	I	M	A	D	I	Y	S	E	G	L	I	I	W	E	M	A	R	R	C	T	I	-	G	G	I	V	E	E	Y	Q	L	P	Y	N	ALK-3		
T	I	N	M	K	N	H	F	D	S	F	K	C	A	D	I	Y	A	L	G	L	V	Y	W	E	I	A	R	R	C	N	S	-	G	G	V	H	E	E	Y	Q	L	P	Y	D	ALK-4	
S	L	N	R	N	H	F	Q	S	Y	I	M	A	D	M	Y	S	E	G	L	I	I	W	E	I	A	R	R	C	V	S	-	G	G	I	V	E	E	Y	Q	L	P	Y	N	ALK-6		

IX

X

E	I	G	Q	M	P	S	L	E	D	H	Q	E	V	V	M	K	K	K	R	P	P	V	L	R	D	Y	W	Q	K	H	A	G	M	A	M	L	C	C	E	T	I	E	E	C	W	ACTR-II	
E	I	G	Q	M	P	S	L	E	E	L	Q	E	V	V	M	K	K	K	R	P	P	V	L	R	D	Y	W	Q	K	H	A	G	M	A	M	L	C	C	E	T	I	E	E	C	W	ACTR-II	
K	V	R	E	M	P	C	V	E	S	M	K	D	M	V	L	R	D	R	G	R	P	P	V	L	R	D	Y	W	Q	K	H	A	G	M	A	M	L	C	C	E	T	I	E	E	C	W	TBR-II
L	V	P	S	D	P	S	V	E	E	M	K	V	V	C	V	C	Q	K	L	R	P	P	V	L	R	D	Y	W	Q	K	H	A	G	M	A	M	L	C	C	E	T	I	E	E	C	W	TBR-I/ALK-5
V	V	P	S	D	P	S	V	E	E	M	K	V	V	C	V	C	Q	K	L	R	P	P	V	L	R	D	Y	W	Q	K	H	A	G	M	A	M	L	C	C	E	T	I	E	E	C	W	ALK-1
M	V	P	S	D	P	S	V	E	E	M	K	V	V	C	V	C	Q	K	L	R	P	P	V	L	R	D	Y	W	Q	K	H	A	G	M	A	M	L	C	C	E	T	I	E	E	C	W	ALK-2
L	V	P	S	D	P	S	V	E	E	M	K	V	V	C	V	C	Q	K	L	R	P	P	V	L	R	D	Y	W	Q	K	H	A	G	M	A	M	L	C	C	E	T	I	E	E	C	W	ALK-3
L	V	P	S	D	P	S	V	E	E	M	K	V	V	C	V	C	Q	K	L	R	P	P	V	L	R	D	Y	W	Q	K	H	A	G	M	A	M	L	C	C	E	T	I	E	E	C	W	ALK-4
L	V	P	S	D	P	S	V	E	E	M	K	V	V	C	V	C	Q	K	L	R	P	P	V	L	R	D	Y	W	Q	K	H	A	G	M	A	M	L	C	C	E	T	I	E	E	C	W	ALK-6

Fig. 3 contd.



XI

P K E S S L (S13) A C T R - I I  
 P K E S S I (S36) A C T R - I I B  
 K (S67) T B R - I I

Fig. 3 contd.

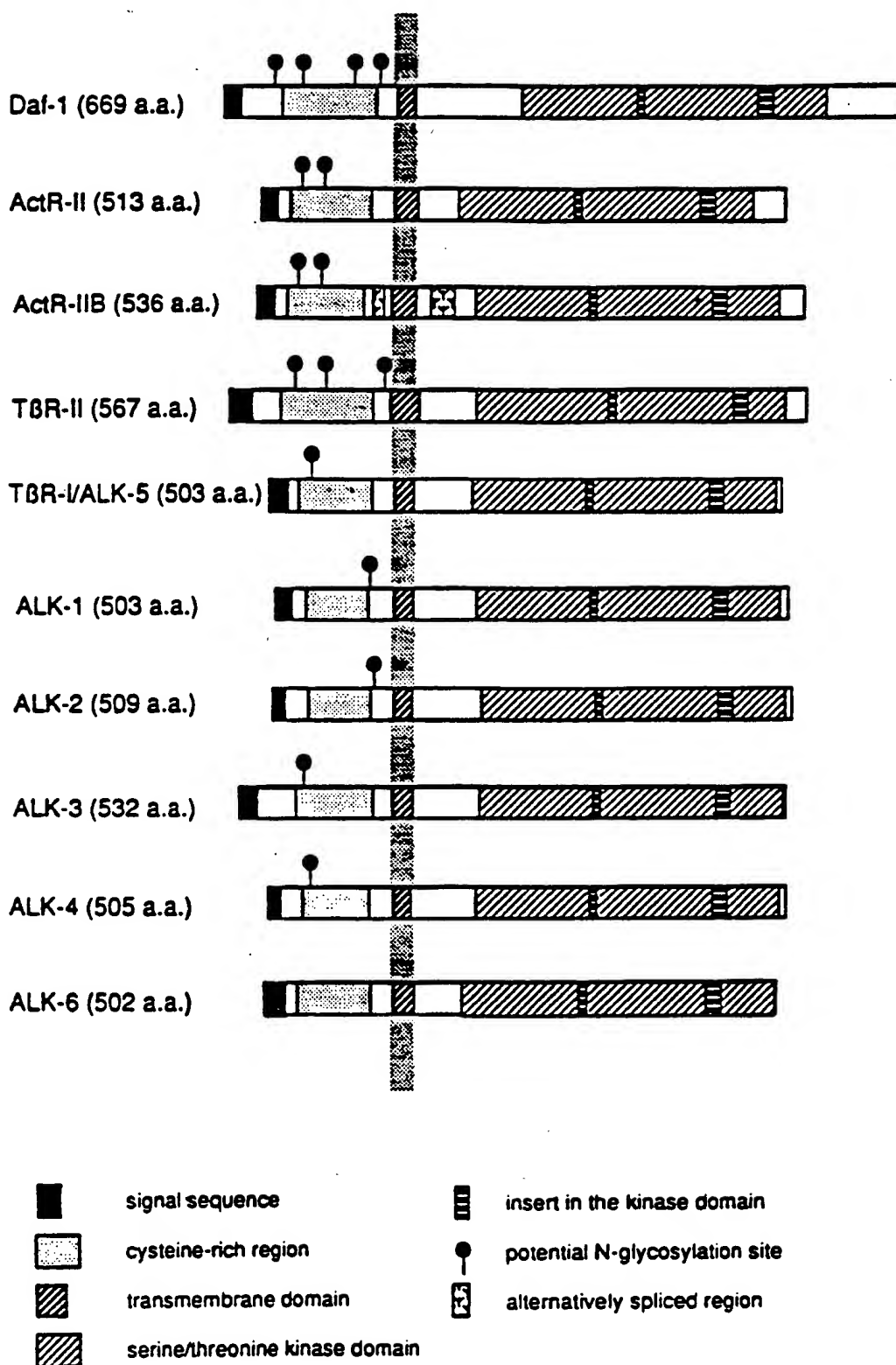


Fig. 4



[illegible]

**Fig. 5**

ALK-2	ALK-3	ALK-4	ALK-5	ActR-II	ActR-IIB	TBR-II	daf-1	
79	60	61	63	40	40	37	39	ALK-1
	63	64	65	41	39	37	39	ALK-2
		63	65	41	38	37	39	ALK-3
			90	41	40	39	42	ALK-4
				42	40	41	43	ALK-5
					78	48	35	ActR-II
						47	32	ActR-IIB
							34	TBR-II

Fig. 6

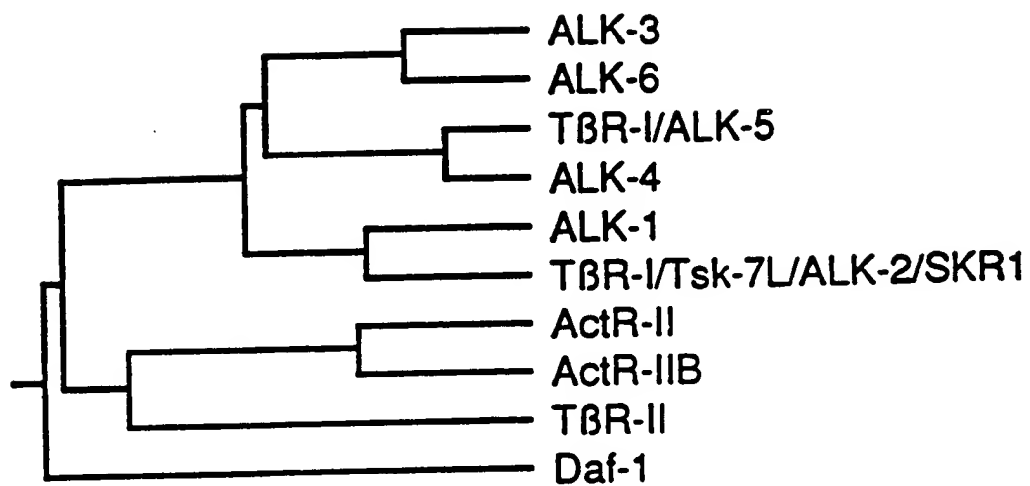


Fig. 7